

Ser. No. 09/505,501
Filed: February 17, 2000
GAU: 3641

IV. Remarks

Claims 1-7 and 19-24 remain in the application for consideration. Claims 20 and 23 are herein amended.

Rejections under 35 USC §112

Claims 20 and 23 were rejected under 35 USC §112, first and second paragraphs, as allegedly containing subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor(s) had possession of the invention at the time the application was filed, and that the subject matter was indefinite. The drawings were also rejected under 35 USC §1.83(a) as allegedly not showing an oval shape.

Applicants herein amend claims 20 and 23 to recite that the shapes shown in Figs 1B, 2A, and 2B have cross-sections which comprise two semicircles connected by parallel lines.

Applicants submit that this shape and its corresponding description is fully supported in the drawings, and therefore this rejection is overcome.

Rejection under 35 USC §103

Claims 1-7 and 19-24 were rejected as being unpatentable over newly cited U.S. Patent No. 2,292,469 to Olsen in view of

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U.S. Patent No. 4,094,248 to Jacobson and U.S. Patent No. 5,682,013 to Smith. Applicants respectfully traverse the rejection.

Olsen discloses a smokeless powder made from nitrocellulose, nitroglycerine, diphenylamine, and dibutylphthalate. Olsen discloses that a lower viscosity may be generated by increasing the amount of solvent.

Jacobson and Smith each teach various propellant shapes (e.g., shapes with external grooves, or cylindrical).

In contrast, claim 1 of the present invention recites a lacquer composition useful as a propellant, comprising, among other things, about 15 to 70 wt% of an organic solvent, from about 0.1 to about 2.5 wt% of a stabilizer, and nitrocellulose, wherein the lacquer composition has a viscosity of less than ten million centipoise when processed, and wherein the lacquer composition is processed into perforated propellant grains.

Applicants submit that the present invention is distinguishable from Olsen, Jacobsen, and Smith, taken individually or in combination. In addition, Applicants submit that the Examiner is impermissibly ignoring explicit claim limitations that distinguish the present invention from the cited references. In particular, Olsen does not disclose or suggest use of 15-70 wt% of a solvent. Rather, Olsen discloses

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greater or less amounts of solvent depending on the desired result, but discloses no ranges, much less any preferred range. In addition, Olsen does not disclose or suggest that the propellant should have a viscosity of less than ten million centipoise when processed, as particularly claimed in claims 1 and 7. On the other hand, Olsen does not disclose or suggest any viscosity values or ranges, but instead makes the general statement that lower viscosities are favored during purification. No disclosure, hint, or suggestion is made by Olsen concerning viscosity ranges during processing as claimed in the present invention.

Olsen further does not disclose or suggest processing the lacquer into perforated propellant grains. As disclosed in the specification at page 6, the term "perforation" is defined to describe inner concentric hollow cylinders arranged parallel to the longitudinal axis of the produced strand. Nowhere does Olsen disclose or suggest such a feature.

Moreover, Jacobsen does not cure the deficiencies of Olsen because Jacobsen also does not disclose or suggest a lacquer composition made from about 15 to 70 wt% of an organic solvent, from about 0.1 to about 2.5 wt% of a stabilizer, and nitrocellulose, wherein the lacquer composition has a viscosity of less than ten million centipoise when processed.

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Like Jacobsen, Smith also does not cure the deficiencies of Olsen because Smith does not disclose or suggest processing the lacquer into perforated propellant grains, much less a lacquer composition made from about 15 to 70 wt% of an organic solvent, from about 0.1 to about 2.5 wt% of a stabilizer, and nitrocellulose, wherein the lacquer composition has a viscosity of less than ten million centipoise when processed. For the above reasons, Applicants submit that the present invention is not obvious over Olsen in view of Jacobsen and Smith taken individually or in combination, and that this rejection is overcome.

Applicants submit that the claims are in condition for allowance and respectfully request reconsideration and early favorable action by the Examiner.

If the Examiner believes a telephone conference would aid in the continued prosecution of this application, the Examiner is invited and encouraged to contact Applicants' representative at the telephone number listed below.

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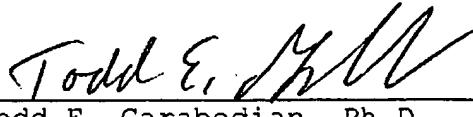
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The Examiner is authorized to charge any fees, or credit any overpayments, associated with this correspondence to Deposit Account 23-1665.

Respectfully submitted,

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